

**Notice of Allowability**

Application No.

10/534,008

Examiner

Vincent Q. Nguyen

Applicant(s)

VAN BERKEL, CORNELIS

Art Unit

2858

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Telephone interview 9/26/2007.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 5/05/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 9/26/2007
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Drawing figures 1, 2, 4, 5.



**VINCENT Q. NGUYEN  
PRIMARY EXAMINER**

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 5/05/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

## **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eric Bram (914) 333-9635 on 9/26/2007.

4. The application has been amended as follows:  
Cancel claims 15 and 16.
5. Examiner amends the abstract and the drawing as follow:

### ***Abstract***

An object sensing system (50), and method, employing electric field sensing, also known as quasi-electrostatic sensing and which may be termed cross capacitive sensing, is described. The system (50) ~~comprises~~ includes at least one electrode arrangement (30), each electrode arrangement (30) ~~comprising~~ including one electric field sensing reception electrode (32) and two electric field sensing transmission electrodes (34, 36). One of the electric field sensing transmission electrodes (36) is driven with an alternating voltage (130) ~~comprising~~ including at least some antiphase portions, for example an inverted signal, in comparison to an alternating voltage (120) with which the other electric field sensing transmission electrode (34) is driven. This improves the spatial precision of object sensing performed by detecting changes in the current induced in the electric field reception electrode (32). In one arrangement the two electric field sensing transmission electrodes (34, 36) are in the form of annular rings arranged around the electric field sensing reception electrode (32).

### ***Drawings***

In the drawing of figure 1, box # 8 is labeled – Current Sensing Circuit –

In the drawing of figure 2, box # 24 is labeled – LPF –

In the drawing of figure 4, box # 32 is labeled – Sensing Reception Electrode -- ;  
boxes 34 and 36, are labeled – Sensing transmission Electrode –

In the drawing of figure 5, box # 8 is labeled – Current Sensing Circuit --; box #  
32 is labeled – Sensing Reception Electrode --; boxes # 34 and 36 are labeled –  
Sensing Transmission Electrode –

***Allowable Subject Matter***

6. Claims 1-14 are allowed.

7. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest an object sensing system having a second electrode arranged as a first electric field sensing transmission electrode; sensing circuitry arranged to process currents, induced in the electric field sensing reception electrode by electric fields generated by the first and second electric field sensing transmission electrodes when driven by the first and second alternating voltages respectively, to detect changes in the induced current due to an object positioned in the electric fields, as recited in the independent claim 1; a method of sensing object having a second electrode arranged as a first electric field sensing transmission electrode; the steps of processing currents induced in the electric field sensing reception electrode by electric fields generated by the first and second electric field sensing transmission electrodes when driven by the first and second alternating voltages respectively; and detecting changes in the induced current due to an object positioned in the electric fields, as recites in the independent claim 8 and in combination of the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

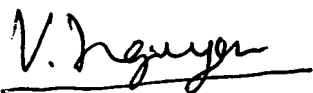
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**Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q. Nguyen whose telephone number is (571) 272-2234. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



September 26, 2007

Vincent Q. Nguyen  
Primary Examiner  
Art Unit 2858

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Approved  
V. Nguyen  
9/26/07

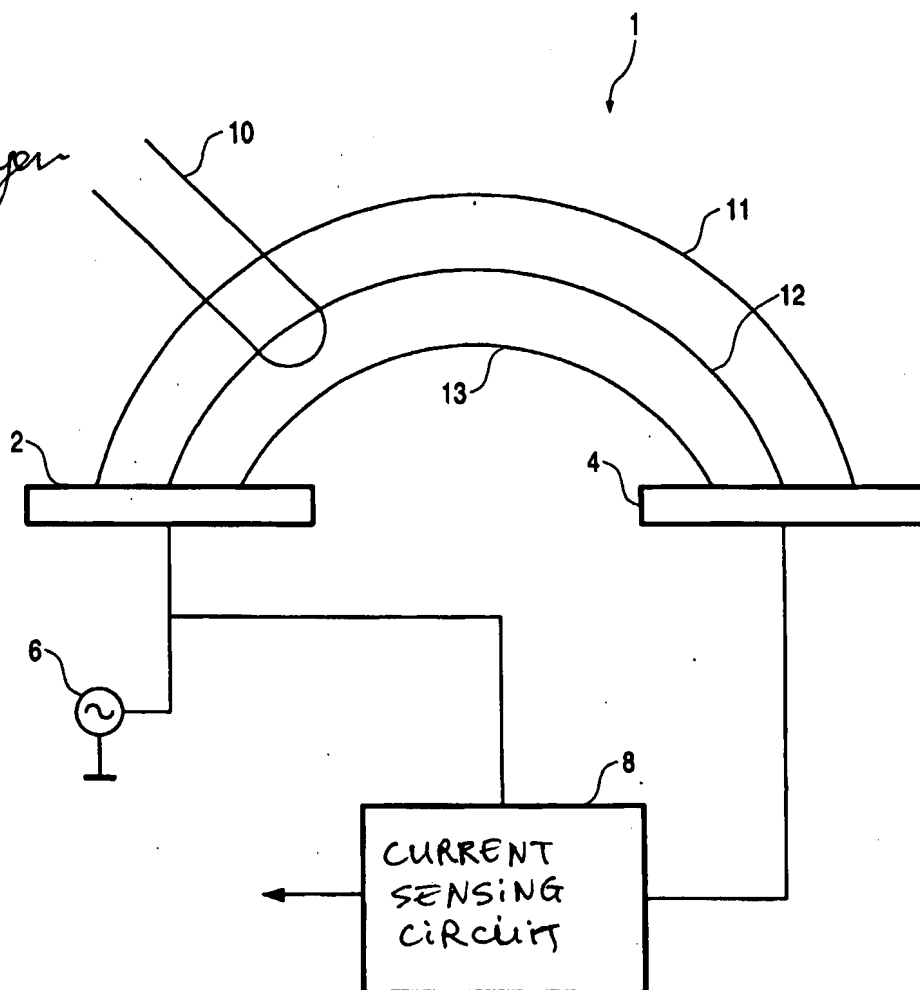


FIG.1

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V. Nguyen

9/26/07

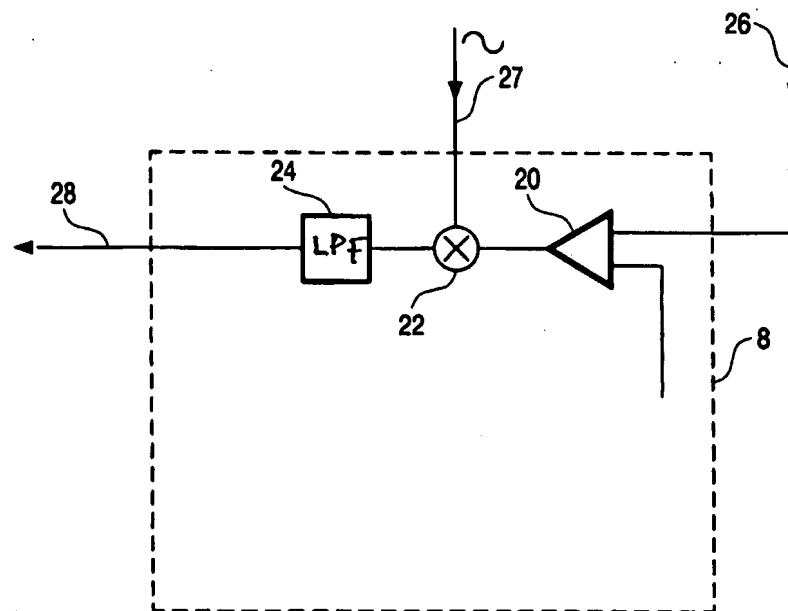


FIG.2

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9/26/07

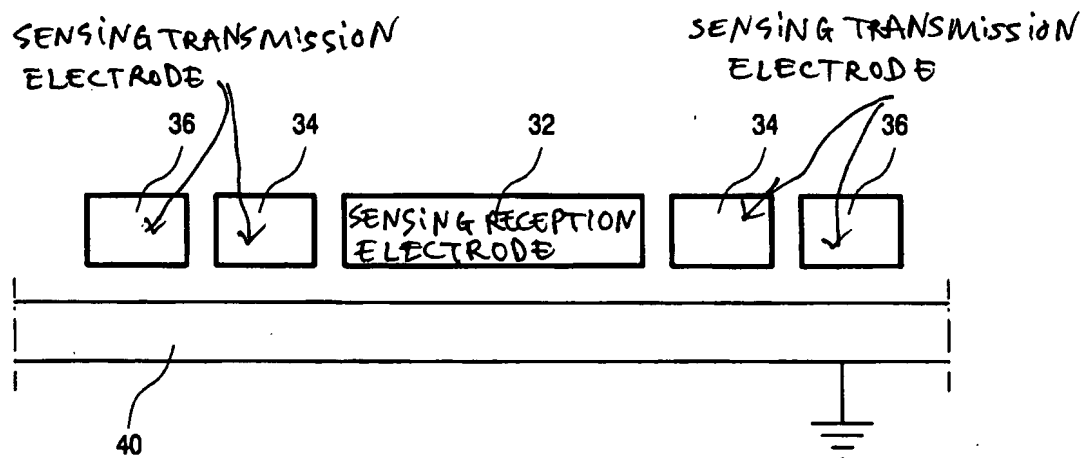


FIG.4



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V. Nguyen  
9/26/07

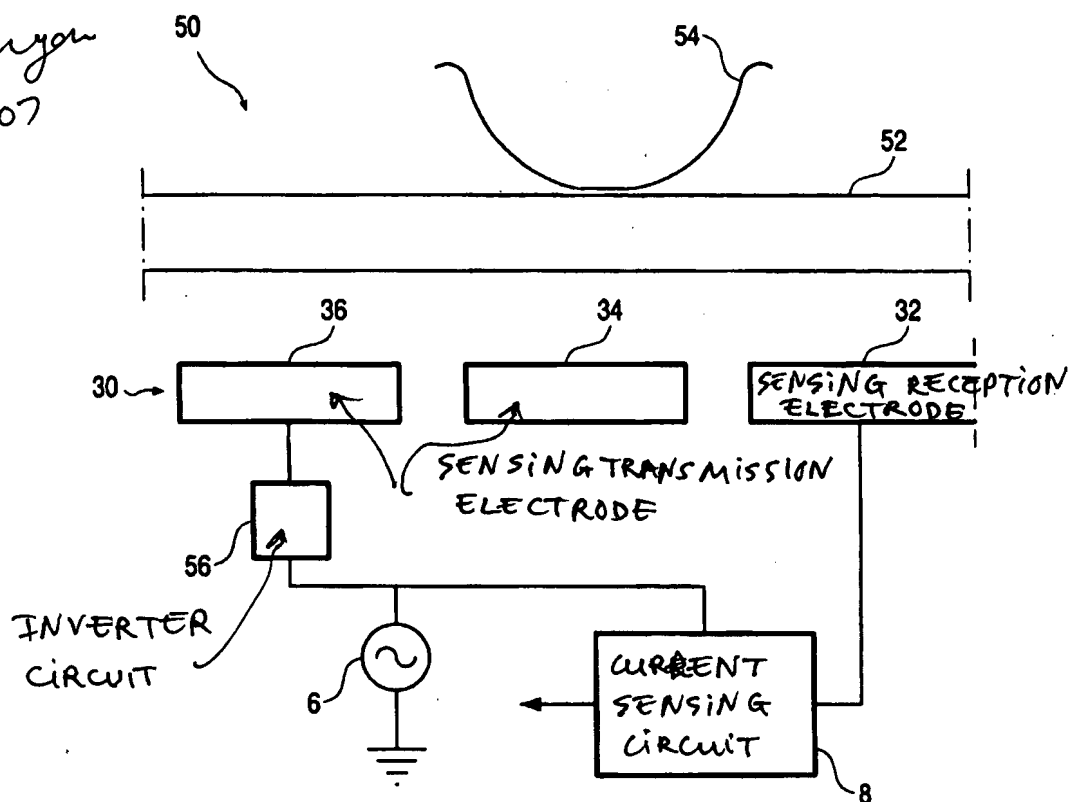


FIG. 5